Please note that there were two (2) claims numbered 38 in the initial application, the second of which has been re-numbered as claim 39 in the attached replacement sheets.

Please add new claims 41 - 51 as shown on the attached replacement sheets and set forth below for the convenience of the Examiner.

Finally, please amend the Abstract as follows to correct a typographical error:

> An illumination device for simulating neon lighting comprising a plurality of spaced point light sources positioned adjacent a lateral light receiving surface of a substantially rod-like waveguide made of a material that preferentially scatters light entering the light receiving surface such that the light intensity pattern exiting a lateral light emitting surface of the waveguide has a substantially uniform light intensity pattern.

Added Claims

41. An illumination device for simulating neon lighting, comprising:

a substantially rod-like member having a predetermined length with a lateral light receiving surface and a lateral curved light emitting surface having a predetermined circumferential width, said member being comprised of a material that has both optical waveguide and light scattering properties that preferentially scatters light entering said light receiving surface into an elongated light intensity pattern on said light emitting surface with a major axis extending along said predetermined length;

an elongated light source extending along and positioned adjacent said light receiving surface and spaced from said light emitting surface a sufficient distance to allow said light intensity pattern on said emitting surface to have a minor axis extending substantially the entire circumferential width of said light emitting surface;

a housing in which said light source is positioned, said housing extending along said light receiving surface and having a pair of side walls, each with an interior light reflecting surface and an exterior light absorbing surface; and

an electric connecting member positioned within said housing and adapted to connect said light source to a remote power source.

42. An illumination device for simulating neon lighting, comprising:

a light transmitting member of a predetermined length having a substantially curved front surface and a light receiving lateral surface, said member being comprised of a material that has both optical waveguide and light scattering properties that preferentially scatters light entering said light receiving surface into an elongated light intensity pattern on said light emitting surface with a major axis extending along said predetermined length;

a housing having spaced side walls abutting said light receiving lateral surface and defining a volume extending along said predetermined length of said light transmitting member, said side walls having light reflecting interior surfaces and a light absorbing exterior surfaces; and

a multiplicity of spaced point light sources housed within said volume and extending along said predetermined length, said spaced point light sources positioned a distance from said curved front surface sufficient to allow a light intensity pattern from each of said point light sources to overlap neighboring light intensity patterns so that the light intensity pattern collectively emitted from said front surface appears uniform.

43. An illumination device for simulating neon lighting, comprising:

an essentially solid, leaky waveguide rod having a predetermined length with a lateral light receiving surface and a lateral light emitting surface;

an elongated light source extending substantially along said predetermined length of and positioned adjacent to said light receiving surface for emitting a portion of light emitted by said light source directly into said light receiving surface; and

a housing defining a volume that encompasses said elongated light source, whereby light entering said lateral light receiving surface is preferentially directed along the predetermined length of the leaky waveguide rod, exiting said light emitting curved surface in an elongated light intensity pattern that has a major axis extending along the length of said waveguide rod.

44. The illumination device of claim 43, and further including transparent material filling at least a portion of said volume and abutting said light receiving surface and said elongated light source, said transparent material having an index of refraction that reduces Fresnel losses between said light source and said waveguide.

45. The illumination device of claim 44, in which said elongated light source is a multiplicity of point light sources.

46. The illumination device of claim 45, in which said point light sources are light emitting diodes.

47. The illumination device of claim 46, in which the index of refraction of said transparent material is essentially the same as that of said waveguide rod and housings of said light emitting diodes.

48. The illumination device of claim 46, in which said light emitting diodes are positioned a distance from said curved front surface sufficient to allow a light intensity pattern from each of said point light sources to overlap neighboring light intensity patterns so that the light intensity pattern collectively emitted from said front surface appears uniform.

49. The light illumination device of claim 43, in which said waveguide rod is comprised of an acrylic with light scattering characteristics.

50. The illumination device of claim 43, in which said housing walls has side walls having internally light reflecting surfaces.

51. The illumination device of claim 50, in which said side walls have externally light absorbing surfaces.

Amended Claims

2. (amended) The illumination device of claim [1] 41 in which said elongated light source is a multiplicity of spaced point light sources arranged in a line extending substantially along said light receiving surface [, said point light sources are spaced from one another a

distance sufficient to cause the light intensity pattern of each light source to overlap and form a collective light intensity pattern that appears substantially uniform along said length of said light emitting surface].

6. (amended) The illumination device of claim [1] 41 in which said housing comprises a flexible material, [is adapted to be bent into a non-linear shape] and said electrical connecting member is sufficiently flexible so as to be bent to conform to any [the] non-linear shape formed by said housing.

8. (amended) The illumination device of claim [5] 41 including a light transmitting material filling an interior space of said housing to maintain positioning of said light source and electric connecting member within said housing.

11. (amended) The illumination device of claim 8 in which said light source [are] is comprised of a plurality of light emitting diodes, and said light transmitting material has an index of refraction essentially matching the index of refraction of said light emitting diodes.

15. (amended) The illumination device of claim [5] 41 in which said waveguide and said housing are integral and comprised of an impact resistant material.

18. (amended) The illumination device of claim 3 wherein the light emitting diodes have housings arranged in an inverted positions with respect to said light receiving surface.

24. (amended) The illumination device of claim [23] 42 in which the interior of said surfaces of said side walls are covered with a light reflecting material and exterior surfaces are covered with a light absorbing material.

25. (amended) The illumination device of claim [23] 42 including a spacer member made of transparent material positioned and filling a portion of the volume between said point light sources and said member.

27. (amended) The illumination device of claim [23] 42 in which said point light sources are LEDs.

34. (amended) A method of making an illumination device capable of simulating neon lighting, comprising the steps of:

forming an essentially solid rod with a predetermined length and a pair of lateral surfaces from material having optical waveguide and light scattering properties [with preferential light scattering characteristics] such that light entering a first of said lateral surfaces is caused to form an essentially elliptically shaped light intensity pattern that has a major axis in a direction substantially parallel to said predetermined length;

placing a housing having a pair of spaced walls defining a volume in connected relationship with said first lateral surface;

bending said rod and said housing into a desired shape;